CLAIMS

1. A recording apparatus comprising:

extraction means for extracting an image from a unit in which a moving image is encoded, the unit including a constant number of images;

reduction means for reducing the amount of information of the extracted image;

encoding means for encoding the image whose amount of information is reduced by a predetermined encoding scheme;

association means for associating the encoded image with the unit from which the image is extracted by the extraction means; and

recording control means for controlling recording of the image associated with the unit onto a data recording medium for recording the moving image.

2. The recording apparatus according to claim 1, wherein the association means is a track associated with a track of the moving image and associates the encoded image with the unit by arranging the encoded image in a track in a predetermined file format.

3. The recording apparatus according to claim 1, wherein the association means associates the encoded image with the unit by associating a range of time for playback of the unit of the moving image with the encoded image.

4. The recording apparatus according to claim 1, wherein the recording control means:

controls recording of the moving image onto the data recording medium such that the moving image in a predetermined time for playback is recorded in a first contiguous area of the data recording medium and

controls recording of the image onto the data recording medium such that the image is recorded in a second contiguous area of the data recording medium when the amount of data of the encoded image exceeds a predetermined threshold if the recording of the moving image in the first area of the data recording medium is ended.

5. The recording apparatus according to claim 1, wherein the encoding means encodes the image by a compression and encoding scheme for a static image.

6. The recording apparatus according to claim 1, wherein the encoding means encodes the image by a compression and encoding scheme for a moving image such that decoding is possible only with the image.

7. The recording apparatus according to claim 1, wherein the reduction means reduces the amount of information of the image by thinning out pixels of the image.

8. The recording apparatus according to claim 1, wherein the reduction means reduces the amount of information of the image by removing a high-frequency component of the image.

9. A recording method comprising:

an extraction step of extracting an image from a unit in which a moving image is encoded, the unit including a constant number of images;

a reduction step of reducing the amount of information of the extracted image;

an encoding step of encoding the image whose amount of information is reduced by a predetermined encoding scheme;

an association step of associating the encoded image with the unit from which the image is extracted in the extraction step; and

a recording control step of controlling recording of the image associated with the unit onto a data recording medium for recording the moving image.

10. A recording medium storing a program causing a computer to perform recording processing comprising:

an extraction step of extracting an image from a unit in which a moving image is encoded, the unit including a constant number of images;

a reduction step of reducing the amount of information of the extracted image;

an encoding step of encoding the image whose amount of information is reduced by a predetermined encoding scheme;

an association step of associating the encoded image with the unit from which the image is extracted in the

extraction step; and

a recording control step of controlling recording of the image associated with the unit onto a data recording medium for recording the moving image.

11. A program causing a computer to perform recording processing comprising:

an extraction step of extracting an image from a unit in which a moving image is encoded, the unit including a constant number of images;

a reduction step of reducing the amount of information of the extracted image;

an encoding step of encoding the image whose amount of information is reduced by a predetermined encoding scheme;

an association step of associating the encoded image with the unit from which the image is extracted in the extraction step; and

a recording control step of controlling recording of the image associated with the unit onto a data recording medium for recording the moving image.

12. A playback apparatus comprising:

reading control means for controlling reading an image from a data recording medium recording a moving image and the image, the image being extracted from a unit in which the moving image is encoded, the unit including a constant number of images, the amount of information of the image

being reduced, the image being encoded by a predetermined

encoding scheme, the image being associated with each unit,

and the reading being based on an instruction from a user

and a relationship with the unit of the moving image;

   decoding means for decoding the read out image; and

   display control means for controlling display of the

decoded image.

   13.   The playback apparatus according to claim 12, wherein

the reading control means controls reading the image from

the data recording medium so as to read only the image if

the user directs a fast-forward operation or a rewind

operation.

   14.   The playback apparatus according to claim 12, wherein

the decoding means decodes the image encoded by a

compression and encoding scheme for a static image.

   15.   The playback apparatus according to claim 12, wherein

the decoding means decodes the image encoded by a

compression and encoding scheme for the moving image such

that decoding is possible only with the image.

   16.   A playback method comprising:

   a reading control step of controlling reading an image

from a data recording medium recording a moving image and

the image, the image being extracted from a unit in which

the moving image is encoded, the unit including a constant

number of images, the amount of information of the image

being reduced, the image being encoded by a predetermined encoding scheme, the image being associated with each unit, and the reading being based on an instruction from a user and a relationship with the unit;

a decoding step of decoding the read out image; and

a display control step of controlling display of the decoded image.

17. A recording medium storing a program causing a computer to perform playback processing comprising:

a reading control step of controlling reading an image from a data recording medium recording a moving image and the image, the image being extracted from a unit in which the moving image is encoded, the unit including a constant number of images, the amount of information of the image being reduced, the image being encoded by a predetermined encoding scheme, the image being associated with each unit, and the reading being based on an instruction from a user and a relationship with the unit;

a decoding step of decoding the read out image; and

a display control step of controlling display of the decoded image.

18. A program causing a computer to perform playback processing comprising:

a reading control step of controlling reading an image from a data recording medium recording a moving image and

the image, the image being extracted from a unit in which the moving image is encoded, the unit including a constant number of images, the amount of information of the image being reduced, the image being encoded by a predetermined encoding scheme, the image being associated with each unit, and the reading being based on an instruction from a user and a relationship with the unit;

a decoding step of decoding the read out image; and

a display control step of controlling display of the decoded image.